



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Geoff W. Taylor, et al.

SERIAL NO.: 10/602,217

GROUP ART UNIT:

FILED: June 24, 2003

EXAMINER:

FOR: Interference Cancellation
System Employing Photonic Sigma
Delta Modulation and Optical
True Time Delay

ATT'Y DOCKET: OPE-024

Honorable Commissioner of Patents
and Trademarks
Washington, D.C. 20231

I hereby certify that this correspondence is being deposited on this day with the United States Postal Service as first class mail in an envelope addressed to : Commissioner of Patents and Trademarks, Washington, D.C. 20231.

David P. Gordon
David P. Gordon
Reg. No. 29,996

April 22, 2004
Date

Sir:

SUBMITTAL OF DOCUMENTS PURSUANT TO DUTY OF DISCLOSURE

Pursuant to applicant's duty of disclosure under 37 CFR Section 1.56, enclosed is a completed form PTO-1449 as well as copies of the cited documents which relate to the above-referenced patent application. Since this document submittal is being presented prior to the first examination on the merits, no fee is due herewith.

The attached relevant articles are as follows:

"Integrated Inversion Channel Optoelectronic Devices and Circuit Elements for Multifunctional Array Applications" describes a new approach to laser-based optoelectronic integration.

"Three-terminal operation of the double-heterostructure optoelectronic switching laser" describes in detail the characteristics of this basic laser structure switch.

"A Quantum-Well Inversion Channel Heterostructure as a Multifunctional Component for Optoelectronic Integrated Circuits" describes an approach to optoelectronic integration utilizing a universal heterostructure with a single GAAs quantum-well active region.

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"Demonstration of an Optoelectronic 4-bit analog-to-digital converter using a thyristor smart comparator" describes in detail it's function and use.

"Monolithic Integration of Lasers with FET and Bipolar Transistors in Inversion Channel Technology". This article describes the enhancement in functionality, reliability and speed of this technology.

"Small-Signal Model and High-Frequency Performance of the BICFET". This article describes the small-signal model for the bipolar inversion channel field-effect transistor (BICFET).

"Heterostructure Field-effect Transistor Optical Modulator in the InGaAs/AlGaAs material system." The heterostructure field-effect transistor optical modulator is demonstrated in a waveguide geometry using strained InGaAs quantum wells.

"Optical Components for WDM Lightwave Networks" presents an overview of optical fiber and devices such as couplers, optical transmitters, optical receivers and filters, optical amplifiers, optical routers and switches.

The listed documents are brought to the Examiner's attention because they are known to the applicant and/or the applicant's attorney and may be considered by the Examiner to be material to his/her examination. This listing should not be construed as representation that a search has been made or that no better art exists. No inference should be made that the documents are in fact material merely because they are referenced herein. Moreover, no representation is made that the brief descriptions of the references herein necessarily describe the most material aspects of the references. Further, by this listing, the applicant is not making any admission regarding the relative dates of the invention and listed disclosures.

Respectfully submitted,



David P. Gordon
Reg. #29,996
Attorney for Applicant(s)

65 Woods End Road
Stamford, CT 06905
(203) 329-1160



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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
		"Integrated Inversion Channel Optoelectronic Devices and Circuit Elements for Multifunctional Array Applications" G.W. Taylor et al., IEEE Journal of Quantum Electronics, Vol. 29, No. 2, February, 1993	
		"Three-Terminal Operation of the Double-Heterostructure Optoelectronic Switching Laser", G. W. Taylor, P.R. Claisse, P. Cooke, AT&T Laboratories, March 30, 1991	
		"A Quantum-Well Inversion Channel Heterostructure as a Multifunctional Component for Optoelectronic Integrated Circuits", Sargood, Taylor, Claisse, Vang, Cooke, Doctor, Kiely, Burrus, IEEE 1993	
		"Demonstration of an Optoelectronic 4-bit Analog-to-Digital Converter Using a Thyristor Smart Comparator", J. Cai, G. W. Taylor, Optics Communications, October 1, 2000, pp. 79-88	
		"Monolithic Integration of Lasers with FET and Bipolar Transistors in Inversion Channel Technology", A. Evaldsson, T.A. Vang, G. W. Taylor, P.A. Evaldsson, and P. Cooke, Electronic Letters, January 1993, pp. 60-62.	
		"Small-Signal Model and High-Frequency Performance of the BICFET", G.W. Taylor, John G. Simmons, November, 1985 IEEE	
		"Heterostructure field-effect transistor optical modulator in the InGaAs/A1GaAs material system", Applied Physics Letters, November 16, 1992	
		"Optical Components for WDM Lightwave Networks*", M. S. Borella et al., J.P. Jue, D. Banerjee, B. Ramamurthy and B. Mukherjee, Proceedings of the IEEE, Vol. 85, No. 8, pp. 1274-1307, Aug. 1997	
EXAMINER		DATE CONSIDERED	



INFORMATION DISCLOSURE CITATION PAGE 2 OF 2				Atty Docket No. OPE-024		Serial No. 10/602,217	
				Applicant Geoff W. Taylor et al.			
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US PATENT DOCUMENTS							
Examiner Initials		Document No.	Date	Name	Class	Subclass	Filing date if approp.
	A	US2002 /0150368A1	10/17/02	Imoto	385	132	
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